

SNF Stabilization and Disposition (RL-0012)

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*May 31st Celebration – Completion of
Removal of Sludge from K East Basin*



*K East Fuel Transfer System
Shipment*



Overview

This section addresses work in Project Baseline Summaries (PBS) RL-0012, *Spent Nuclear Fuel (SNF) Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of May 2007.

Notable Accomplishments

SNF Stabilization and Disposition (PBS RL-0012)

K East Containerization:

- Completed Final Pass vacuuming on May 28, 2007.
- Completed Found Fuel and Scrap transfers via Fuel Transfer System (FTS) on May 20, 2007.

Hose In Hose (HIH) Transfer:

- Completed HIH transfers on May 31, 2007.
 - DNFSB commitments 120E / 122E and TPA M-034-34 completed.

K West Containerization:

- As of June 13, 2007, completed vacuuming 6279 of 8271 cubic feet (76 percent).
- Implemented recovery schedule adding a second vacuuming system and a third shift as well as a dedicated debris removal crew.

Legacy Fuel/CVD:

- RL approved Multi-Canister Overpack (MCO) Final Safety Analysis Report (FSAR) on March 27, 2007.

Sludge Treatment Project (STP):

Project

- Submitted Baseline Change Requests (BCRs) to address RL-directed changes to address planning activities for variance control.
- Received British Nuclear Group America (BNGA) draft report on Engineering Studies addressing the Independent Reviews (Peres/Murphy) and their recommendations to resolve findings.
- Initiated dialogue with RL on incorporating Technology Readiness Assessment (TRA) into Critical Decision (CD)-3 schedule.

Equipment

- Mobile Solidification System (MOSS)
 - Completed Factory Acceptance Testing (FAT).
- Drum Loadout System Design
 - 30 percent complete (30 percent design review held week of May 21, 2007).
- Control Systems
 - General Service Control System Programmable Logic Controller (PLC) programming – 35% complete
 - Safety Class PLC programming – 10 percent.
- Equipment Installation Packages Design
 - 60 percent complete.

Issues

SNF Stabilization and Disposition (PBS RL-0012)

- **K West Floor and Pit Sludge Retrieval (FPSR) activity experiencing delays due to debris interference, poor visibility, and resource availability**
 - Mitigation In Progress:
 - o Second vacuuming system installed and operational to facilitate dual operations.
 - o Three-shift operation began on June 4, 2007; war room team to stay through June 30, 2007.
 - o Separate debris removal crew established at K West.
 - o K East lessons learned and experienced operators providing advice and support to K West.
- **Impact of January 29, 2007, RL-directed hold on new procurements and Cold Vacuum Drying Facility (CVDF) construction starts until successful RL CD-3, "Readiness to Start Construction" review**
 - Mitigation In Progress:
 - o Continue dialog with RL on requirements and schedule for successful CD-3 and TRA reviews.
 - o Planning for implementation of Fluor Corporate Independent Review and KBC Project STP Functional Integration Management Assessment recommendations for risk reduction actions.
 - o Development of detailed scope and planning of deliverables required for RL CD-3 review.
- **Potential impacts from ten open issues identified during Corrosion System 100% design hazards analysis**
 - Actions In Progress:
 - o BNGA has submitted BCR to address issues by performing additional analysis and documenting design changes and safety classifications of affected equipment.
 - o FH has reviewed BCR and is in the process of completing the technical evaluation.
 - o Some issues may need to be revisited when other technical changes affecting design are considered.

FY 2007 Funds vs. Spend Forecast (\$M)

		Projected FY 2007 Funding	FY 2007 Fiscal Year Spend Forecast	Variance
RL-0012	SNF Stabilization & Disposition	\$ 137.5	\$ 129.5	\$ 8.0

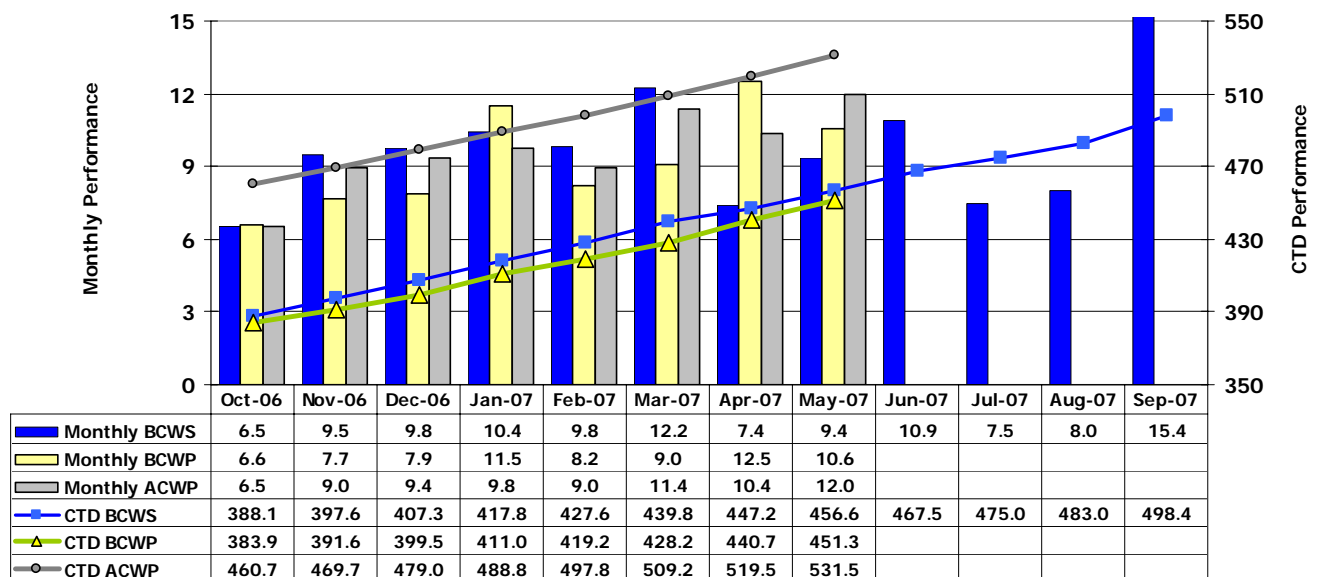
Schedule/Cost Performance (\$M)

SNF Stabilization & Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY07/CTD)
Current Period (Month)	\$9.4	\$10.6	\$12.0	\$1.2	12.7%	-\$1.4	-13.0%	\$116.8
Cumulative-to-Date (FY 2004 - Present)	\$456.6	\$451.3	\$531.5	-\$5.3	-1.2%	-\$80.2	-17.8%	\$567.0

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

- CTD Schedule Performance (-\$5.3M/-1.2%):** Delays occurred in the following activities: K East final pass vacuuming activities due to water clarity, clogging, and debris issues; K East – K West sludge transfer system due to construction, startup and operational issues; K West sludge containerization due to debris removal issues and availability of resources (shifted to higher priority work scope); sludge treatment design review, procurement and construction activities due to decision to implement CD-3 design requirements; and D&D hydrolasing activities due to late turnover of the basin.
- CTD Cost Performance (-\$80.2M/-17.8%):** The unfavorable CV is primarily due to problems encountered in design, implementation, startup, and operation of fuel removal, sludge containerization, transfer, and treatment systems. System complexity and requirements were underestimated.

Performance Analysis CTD and Monthly (\$M)



Milestone Achievement

Number	Title	Type	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-33B (S10-05-018)	Complete K East Sludge Containerization	TPA	03/01/05	10/20/06		Complete
DNFSB 119E (S10-05-014)	Complete K East Bulk Sludge Consolidation	DNFSB	10/31/06	10/20/06		Complete 11 days ahead of milestone
M-034-34 (S10-05-010)	Complete Removal of K East Sludge	TPA	05/31/07	05/31/07		Complete
DNFSB 120E (S10-05-015)	Complete K East Basin Containerized Sludge Removal	DNFSB	05/31/07	05/31/07		Complete
DNFSB 122E	K East Final Pass Sludge Removed	DNFSB	05/31/07	05/31/07		Complete
M-034-35a (S10-05-011)	Containerize K West Bulk Sludge	TPA	07/31/07		07/01/07	Ahead of Schedule
DNFSB 119W (S10-05-016)	Complete K West Bulk Sludge Containerization	DNFSB	07/31/07		07/01/07	Ahead of Schedule
M-034-35b (S10-05-011)	Complete K West Final Pass	TPA	01/31/08		01/31/08	On Schedule

* DNFSB dates reflect Implementation Plan update, TPA dates reflect change package M-34-05-04, forecast dates are current working level schedules.